

CADASTRAL SURVEYS

Guidelines for Student Surveyors

Fulfilling requirements to be

Commissioned as a Land Surveyor

A. Introduction

These guidelines are to inform supervising surveyors of their obligations and responsibilities in the training of student surveyors under Professional Attachment Agreements. This training is essential to the professional well-being of the candidate prior to and well beyond the sitting of the Land Surveyors Board (LSB) Examination.

The LSB conducts a final examination of students prior to granting a Commission to successful candidates. The results of which can only serve as a general indication of the competence of the students. The real tests occur during the life of the Professional Attachment where the level of knowledge and character necessary to become a professional surveyor is determined to a great extent by the supervising surveyor. It is only when a student has achieved that standard in the mind of the Principal that approval should be given for the student to present to the Board in the Final Examinations. All presented candidates will reflect on the reputation of the supervising surveyor, albeit some positive while others negative. It is with these considerations in mind that the LSB has prepared a set of guidelines which should be beneficial to all supervising surveyors/principals.

These guidelines are of great significance in the context of the importance of Cadastral Surveying in Jamaica, and should be read in conjunction with the Rules of Attachment, the Land Surveyors Act and the Land Surveyors Regulations.

B. Importance of these Guidelines

The information contained in these guidelines are to be taken in the context of the following:

1. Legal interests subsist in land
2. Cadastral surveys establish the legal boundaries of land parcels
3. Cadastral surveys provide an accurate and unique description of the boundaries of land parcels
4. Cadastral surveys are the foundation of the Torrens system of registration of Title to land
5. In Jamaica registration of Title to land by this system gives the land owner or the interested party the greatest security of tenure
6. The student surveyor should be able to apply all the provisions of the laws and regulations as dictated by field situations

C. Focus areas for Practice

For the provision of practical experience in cadastral surveying to the students qualifying for the status of Commissioned Land Surveyor, this area of operation is divided into:

- (a) Boundary Surveys (large parcels)
- (b) Sub-division surveys
- (c) Boundary surveys (small parcels)

Rationale:

a) Large Boundary Surveys

1. This requires the student to research plans affecting the subject of survey at the Office of Titles, the Island Records Office and the Surveys & Mapping Division of the National Land Agency.
2. Old plans where the accuracy is of a lower order than present requirements under the Land Surveyors Act and Regulations need to be interpreted for field data (boundary marks and nature of boundaries), rather than followed literally as to the field notes or measurements.
3. The finding of old boundary marks on ground entail identification of Trees, Old Stumps, Cairns of Stones and Old Hardwood Posts
4. The surveyor must guide the student as to how s/he is to be satisfied that the boundary as originally surveyed is found
5. The student is required to re-establish surveyed boundary lines from recent surveys and re-place boundary marks if missing.
6. The student is required to immediately report to the surveyor any discrepancy between information on plan and information or marks on earth. This would be investigated and the matter resolved by the surveyor.
7. This exercise should give the students a good appreciation experience of the legal requirements of a survey
8. Because of the size of the survey the student has time to settle down on the job. He/she is expected to make errors, correct them, and still produce an acceptable survey and plan.

b) Sub-division surveys

1. This is one of the areas of land development requiring legal surveys (i.e. surveys are to be done according to law to establish legal boundaries.)
2. The student is made aware of and brought into contact (professional) with all government agencies dealing with land development both for design and approval
3. The student is made aware of changes which s/he is expected to recommend when setting out the sub-division on ground i.e. changes to roads and boundaries of lots

4. The student is expected to set out on ground the sub-division as per the approved proposal, and survey same in accordance with the Land Surveyors Act and Regulations and prepare a plan.
5. Because of the newness and size of the survey the student has time to settle down on the job. He is expected to make mistakes, correct same and still produce an acceptable survey and plan.
6. The student is expected to carry out a 20-30 lot survey (av. 2,000 sq. m – 4,000 sq. m. per lot) by Theodolite.
7. Where no preliminary sub-division plan or design is in place and tenants or informal settlers are in occupation on ground, the student is required to carry out a survey to indicate occupancy and existing roads etc. Under the guidance of the surveyor he designs a sub-division of the land taking into consideration the interests of the tenants and/or informal settlers and the interest of the local authority which is to give approval of the sub-division.

c) **Small surveys**

1. Small surveys are usually considered for size to be of the order of 0.4 – 2.0 Hectares and may take anywhere from ½ day to 2 days for fieldwork with a similar time for office preparation of plan.
2. Work involved may? include:
 - (a) Re-establishment of old survey lines
 - (b) Carrying out an original survey – adjudicating and establishing boundaries
 - (c) Sub-dividing the parcel into 2 or 3 lots
 - (d) Cutting off an area of land to a specific size
 - (e) Cutting off an area of land to an approximate size with ground features used to assist in establishing the exact boundaries
 - (f) Straightening of boundaries (i.e. exchange of equal areas).
3. The student must be able to apply his/her knowledge quickly for the requirements of each job and complete the survey first time.
4. Knowledge and expertise gained on boundary and sub-division surveys should assist greatly in the preparation for the execution of these surveys.

N.B. Proper use of time is essential on these jobs. The economy of the operation will not allow delays or re-visits.

The teaching of Safe working practices must be an integral part of the attachment and therefore must be fully adhered to by all parties involved.

D. Level of Supervision

The philosophy of the Land Surveyors Board is that:-

- the surveyor is solely responsible for surveys carried out under his/her supervision, and
- surveyors should exercise a standard of supervision that will ensure the survey reflects his/her professional responsibilities and complies with relevant statutes.

The extent of supervision will vary according to the experience, skill and ethics of the student. The recommended level of supervision is as follows:-

1. The Principal should fully brief the student on the purpose and details of the survey before the student commences involvement in that survey,
2. The Principal should discuss all aspects of the survey with the student at the completion of the work,
3. Early in the attachment period the Principal should always accompany the student on site, until the student demonstrates an ability to act as team leader for some parts of the survey. From that time onwards the frequency of onsite supervision can be reduced, but-
 - the Principal should be present on sufficient occasions during each survey to ensure that the student's problems are solved expeditiously,
 - the Principal should inspect the marking and physical aspects of the survey, and the field records, closes, re-establishment etc. on its completion, and
 - the Principal should effect sufficient angular and linear checks of the surveys to be satisfied with the standard and accuracy of the student's work.
4. Just before the successful completion of the attachment it is acceptable for the supervision of the student to be reduced for the specific purpose of the further professional development of the student's work attitude and ethics.
5. If the Principal wishes to lessen supervision (under guideline 4. above), the Principal should advise the Land Surveyors Board in writing that the student is within three months of sitting final examinations and will be receiving only off-site supervision.
6. Notwithstanding guideline 5, the Principal will still be wholly responsible for the correctness of the surveys.
7. It is recommended that in the period of off-site supervision:-
 - in the cases of simple jobs, the Principal should inspect the field record of each job, and
 - in other cases the student should prepare a short survey report describing important aspects of each survey (particularly the re-establishment) and
 - that this record be retained by the Principal and forms part of the off-site supervision. These reports could form part of the documentation presented to the Land Surveyors Board supporting the student's application for Commissioning Land Surveyor Examination.

8. Acceptance of off-site supervision only, is limited to the final period of a student's training.
9. The fact that the Principal has signed the plan indicates satisfaction as to the integrity of the survey; inclusive of the accuracy of the survey and that, the survey is in accordance with the regulations, and an acceptance of full responsibility for the survey.

E. Responsibilities of the Principal

The professional attachment of a student is an important and demanding role, not one to be undertaken lightly or for the wrong reasons. The responsibilities of the surveyor include:-

1. Provide the range of experience necessary for the student's development,
2. Provide the tuition and guidance necessary for the student's development (both technical and professional),
3. Wholly responsible for the correct performance of jobs by the student,
4. Treat the student's development as of primary importance and not just an ancillary activity to the running of the firm or the correct completion of surveys,
5. Encourage the student's participation in Board approved Continuing Professional Development Seminars/Workshops/Conferences/Courses.
6. Responsible for effective feedback to the student on every job,
7. Report to the Board on a regular basis (six monthly) on the progress of the student's training.
8. Responsible for the decision to put the student forward for licensing. The Board must depend heavily on the surveyor's opinion as to the student's readiness,
9. The Professional Attachment should state the extent of the Principal's responsibility (if any is accepted) for arranging or participating in training (of a stated nature) which is not available within the Principal's firm. To clarify the extent or basis of the attachment it is beneficial for it to list the scope of work normally done by the Principal, and to list any necessary types of work, which the Principal does not do.
10. It is recognised that the Principal is not committed to successfully complete the student's development within any stipulated time frame, even though a time schedule is included in the agreement. The length of time necessary to complete the training is dependent on the endeavours of the student.

F. Responsibilities of the Student

1. Fundamental and general educational matters (including familiarity with Acts, regulations, guidelines and manuals) should be mandatory for the student. The length of time which would have elapsed before a student qualifies to be Commissioned, is heavily dependent on the amount of time and effort that the student is prepared to contribute during (and before) the Attachment.

3. The student is responsible for ensuring that sufficient time is spent on Continuing Professional Development.

4. The student is responsible for keeping records (Log Book and Dairy) of the training received and for informing the Principal of any slippage of time.

5. The maintenance of records for submission to the Board on a six monthly basis are as follows:

By the Student:-

- a work folder of representative completed jobs;
- a summary assessment of the student's own perception of progress with the components undertaken during the period;
- a personal work diary recording individual jobs that the student has been involved with and validating the type of work experience and the accrual of training days; and
- a record of the professional development courses that have been attended.

By the Supervising Surveyor:-

- reports covering the level of skill and knowledge of the student, such that the degree and complexity of work and responsibilities can be analysed; and
- verification, comment and signing off of the student's work folder and work diary.
- Each entry in the records described above in this paragraph should specifically state which of the skills listed in C. above have been developed during that job.

Note: The maintenance of these records helps to identify any deficiencies in the training program.

6. The Principal shall provide reports to the Board on a six (6) monthly basis, covering the level of skill and knowledge of the student, such that the degree and complexity of work and responsibilities can be analysed.

7. The Board will monitor the progress through the reports, and where necessary provide counselling and assistance to ensure appropriate training opportunities are provided to the student and support is available to the Principal.

G. Principal's Declaration

A declaration is required to be signed by the Principal in the agreement, testifying that in his/her opinion, the student is capable of becoming a Commissioned Land Surveyor in their own right. The form of such declaration is to be as per that prepared by the LSB.

H. The Examination

The Principal decides when a student has the all-round skills and knowledge to result in the successful completion of the Board's examination. There will always be factors such as personal, economic and commercial pressures which may influence the timing of that decision. The focus must however always be on the capability of the student to perform as a Commissioned Land Surveyor

I. Transfer of an Attachment

If circumstances arise such that the student's training cannot be optimally managed by the Principal, then the Principal should arrange transfer of the professional Attachment Agreement, or in extreme cases its suspension or termination.

J. Dispute Resolution

If the aspirations and commitments of both parties are discussed during the attachment, and if the student's progress is discussed frequently during the period of the agreement, a dispute is unlikely.

If a dispute arises that cannot be readily resolved by the Principal and student, the Board will ? provide a Board member to assist with negotiations or resolution. Such assistance will not infer blame.

K. Work Loads Re Cadastral Surveying

At the Surveys & Mapping Division of the NLA, 60 -75% of work done is Cadastral Surveying, processing of Cadastral Plans and administrative work re Cadastral Surveying (including Arbitration Hearings).

For the Surveyors in private practice Cadastral Surveying represents on average 75-85% of their work-load. It is the only area in surveying where the law stipulates the personnel to carry out the surveys, the processes and procedures and accuracies to be followed for the survey, and the preparation of the end product – the plan – as to content and presentation.

L. General

Jamaica strives to maintain a robust Land Registration System and to grow the number of parcels on the Land Register. Among its greatest needs in order to achieve proper land management, development and planning, is the development of a comprehensive cadastral map covering the entire island. All surveyors should be trained to develop a deep understanding of our present cadastral laws and practices so that they may contribute meaningfully in the cadastral mapping project which is now being pursued. This project must be a major consideration in our efforts to introduce a modern Geospatial System, on parcel-based foundation.

M. Termination of Agreement for Attachment

It is prudent for both parties to include in the Professional Training Agreement a clause that outlines the circumstances and conditions relating to the termination of the agreement. The Board suggests that the provisions of the Land Surveyors Act be fully considered before implementing such termination. The Board must be notified of the termination of an agreement. The notification should include evidence that both parties concur with the termination. The Board should be provided with a Certificate of Service for its records.

REFERENCE:

The Land Surveying Licensing Board of Western Australia, **Guidelines For Supervising Surveyors**. <https://www.lslb.wa.gov.au/guidelines-for-supervising-surveyors/>

Prepared by: Land Surveyors Board (Revised September 2020)